

P a t e n t   c l a i m s

1.

A device for connecting structural elements, the device consisting of a male component  
5 and a female component having at least over a part of their length wedge-shaped  
engaging parts having an almost dovetail-like, gradually decreasing cross-section, and  
wherein the male component and the female component are mountable on a face or edge  
of the structural elements in order, on movement of the structural elements relative to  
each other, to cause the male and female components to engage wedgingly,  
10 characterised in that the male and female components each have at least one portion  
designed for abutment against each other and arranged to prevent the male component  
from penetrating wedgingly to the maximum into the female component, thereby  
avoiding mutual deformation of the male and female components or material strain  
thereof on penetration. (Figs. 1-7)

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2.

A device as disclosed in claim 1, characterised in  
that the male component is equipped with two lugs that are arranged to abut against and  
be supported by respective edge portions on the wedge-shaped engaging part of the  
20 female component. (Figs. 2, 3)

3.

A device as disclosed in claim 1, characterised in  
that the female component is equipped with two lugs that extend out to the side from a  
25 portion arranged in continuation of the wedge-shaped engaging part, and that the female  
component similarly has a portion arranged in continuation of its wedge-shaped  
engaging part in order to abut against and support said lugs. (Fig. 6)

4.

30 A device as disclosed in claim 1, characterised in  
that the female component is equipped with a projecting stop that extends out from a  
portion arranged in continuation of the wedge-shaped engaging part, the stop being  
arranged to abut against and support a narrowest end portion of the wedge-shaped  
engaging part of the male component. (Fig. 4)

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5.

A device as disclosed in claim 1, characterised in

that the female component has projections designed to engage with a corresponding recess in the male component in order, on insertion of the male component into the female component, to limit the insertion in that a short end of the recess comes to rest against the projection. (Fig. 1)

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6.

A device as disclosed in claim 1, 2, 3, 4 or 5, characterised in that on the female component there is arranged a inhibiting device which, on the wedging engagement of the male component with the female component, enters  
10 releasable engaging abutment with an edge portion of the inhibiting device against an edge portion of the wedge-shaped engaging part of the male component, the inhibiting device thus releasably inhibiting against axial movement of the male and female components. (Fig. 5)

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7.

A device as disclosed in claim 6, characterised in that the inhibiting device is a retaining spring whose engagement with the male component is releasable by means of a release bar which can be passed into a space defined by the male and female components in order, on the turning of the bar about its  
20 longitudinal axis, to provide by means of a pin or eccentric disc affixed to the bar, a bending of the spring so as to release the engagement with the male component. (Fig. 5)

8.

A device as disclosed in claim 6 or 7, characterised in  
25 that the retaining spring is a leaf spring, and that the releasing counterforce of the spring is adjustable, for example, by means of at least one combined adjusting and fixing screw. (Fig. 5)

9.

30 A device as disclosed in one or more of claims 1-8, characterised in that an angle piece is attachable to at least one end portion of the female part. (Fig. 6c)

10.

A device for connecting structural elements, wherein the device consists of at least two  
35 male components and two female components which are mountable on a face or edge of the structural elements in order, on movement of the structural elements relative to each other, to cause the male and female elements to engage, characterised in that the male

component is in the form of an angled hook designed to be passed with wedging action into the female component, and that the device consists of two connectable rails, that each rail has at least one pair of male and female components arranged as an integral unit, wherein a recess that is adjacent to a male component in a rail forms a female component in this rail and is designed for engagement with a male component in the opposing rail, that on mutual engagement between the rails the opposing male components have opposing faces resting against each other, and that the rails are equipped with engaging members for limiting the vertical movement of the rails in relation to each other, and thus the movement of the male and female components in relation to each other and their degree of engagement. (Figs. 8 and 9).

11.

A device as disclosed in claim 10, characterised in that the engaging members of the rails in addition are designed for lateral stabilisation of the rails.

12.

A device as disclosed in one or more of claims 1-11, characterised in that the structural elements are formed of a non-compostable material, for example, lightweight concrete, and that a profiled attachment fitting for securing said male parts and female parts is secured to at least one end portion of the structural member.

13.

A device as disclosed in claim 12, characterised in that sealing strips are disposed between two adjacent structural members.